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**UTILITY
PATENT APPLICATION
TRANSMITTAL**

(Only for new nonprovisional applications under 37 C.F.R. 1.53(b))

Attorney Docket No. 16437-0208U

First Inventor Thomas John Ford et al.

Title INERTIAL GPS NAVIGATION SYSTEM WITH MODIFIED
KALMAN FILTER

Express Mail Label No. EV 336739692US

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)
2. ☐ Applicant claims small entity status.
See 37 CFR 1.27.
3. ☒ Specification [Total Pages 27]
(preferred arrangement set forth below)
- Descriptive title of the invention
 - Cross References to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to sequence listing, a table, or a computer program listing appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 4]
5. Oath or Declaration [Total Pages 3]
- a. ☒ Newly executed (original or copy)
- b. ☐ Copy from a prior application (37 CFR 1.63 (d))
(for a continuation/divisional with Box 18 completed)
- i. ☐ **DELETION OF INVENTOR(S)**
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☐ Application Data Sheet. See 37 CFR 1.76

ADDRESS TO:Mail Stop Patent Application
Commissioner for Patents
Box 1450
Alexandria, VA 22313-1450

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
- a. ☐ Computer Readable Form (CRF)
- b. Specification Sequence Listing on:
- i. ☐ CD-ROM or CD-R (2 copies); or
 - ii. ☐ paper
- c. ☐ Statements verifying identity of above copies

ACCOMPANYING APPLICATIONS PARTS

9. ☒ Assignment Papers (cover sheet & document(s))
10. ☐ 37 C.F.R. §3.73(b) Statement of Attorney (when there is an assignee) ☐ Power of Attorney
11. ☐ English Translation Document (if applicable)
12. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
13. ☐ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503) (Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed)
16. ☐ Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. ☐ Other:

18. If a **CONTINUING APPLICATION**, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP)

of prior application No: ____ /

Prior application information: Examiner ____

Group / Art Unit:

For **CONTINUATION** or **DIVISIONAL APPS** only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

17. CORRESPONDENCE ADDRESS☒ Customer Number or Bar Code Label (Insert C

24267

PATENT TRADEMARK OFFICE

 (Insert here)or ☐ Correspondence address below

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Patricia A. Sheehan

Registration No. (Attorney/Agent)

32,301

Signature



Date

January 15, 2004

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**FEE TRANSMITTAL
for FY 2003**

Effective 01/01/2003. Patent fees are subject to annual revision.

Applicant Claims Small Entity Status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 896

Complete if Known

Application Number	n/a
Filing Date	herewith
First Named Inventor	Thomas John Ford et al.
Examiner Name	n/a
Group Art Unit	n/a
Attorney Docket No.	16437-0208U

METHOD OF PAYMENT (check all that apply)
☒ Check ☐ Credit Card ☐ Money ☐ Other ☐ None
☒ Deposit Account
Deposit
Account
Number

03-1237

Deposit
Account
Name

Cesari and McKenna, LLP

The Commissioner is authorized to: (check all that apply)
Charge any deficiency or

- ☐ Charge fee indicated below ☒ Credit any overpayments
- ☐ Charge any additional fee(s) during the pendency of this application
- ☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

FEE CALCULATION**1. BASIC FILING FEE**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	750	2001	375	Utility filing fee	770
1002	330	2002	165	Design filing fee	
1003	520	2003	260	Plant filing fee	
1004	750	2004	375	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	
SUBTOTAL (1)					770

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

				Extra Claims		Fee from below	Fee Paid		
Total Claims	14	-	20**	=	0	×	18	=	0
Independent Claims	4	-	3**	=	1	×	86	=	86
Multiple Dependent								=	0

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1202	18	2202	9	Claims in excess of 20	
1201	84	2201	42	Independent claims in excess of 3	
1203	280	2203	140	Multiple dependent claim, if not paid	
1204	84	2204	42	**Reissue independent claims over original patent	
1205	18	2205	9	**Reissue claims in excess of 20 and over original patent	
SUBTOTAL (2)					86

*or number previously paid, if greater; For Reissues, see below

FEE CALCULATION (continued)**3. ADDITIONAL FEES**

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English Specification	
1812	2,520	1812	2,520	For filing a request for ex parte reexamination	
1804	920	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	410	2252	205	Extension for reply within second month	
1253	930	2253	465	Extension for reply within third month	
1254	1,450	2254	725	Extension for reply within fourth month	
1255	1,970	2255	985	Extension for reply within fifth month	
1401	320	2401	160	Notice of Appeal	
1402	320	2402	160	Filing a brief in support of an appeal	
1403	280	2403	140	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,300	2453	650	Petition to revive - unintentional	
1501	1,300	2501	650	Utility Issue fee (or reissue)	
1502	470	2502	235	Design Issue fee	
1503	630	2503	315	Plant Issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	40
1809	750	2809	375	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	750	2810	375	For each additional invention to be examined (37 CFR 1.129(b))	
1801	750	2801	375	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	
Other fee (specify)					
Other fee (specify)					
SUBTOTAL (3)					40

*Reduced by Basic Filing Fee Paid

SUBMITTED BY

Complete (if applicable)

Name (Print/Type)	Patricia A. Sheehan	Registration No. (Attorney/Agent)	32,301	Telephone	(617) 951-2500
Signature	Patricia A. Sheehan	Date	January 15, 2004		

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OF COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re The Application of:)
Thomas John Ford et al.)
Serial No.: n/a) Examiner: n/a
Filed: herewith)
For: INERTIAL GPS NAVIGATION) Art Unit: n/a
SYSTEM WITH MODIFIED)
KALMAN FILTER)

Cesari and McKenna, LLP
88 Black Falcon Avenue
Boston, MA 02210
January 15, 2004

EXPRESS-MAIL DEPOSIT

“Express Mail” Mailing-Label Number: EV336739692US

The following papers are being deposited with the United States Postal Service
“Express Mail Post Office to Addressee” service pursuant to 37 C.F.R. §1.10:

X Patent Application (27 pages including 14 claims)
X Oath or Declaration X Fee Transmittal Letter
X Utility Patent Application Transmittal Letter X Assignment With Recordation Form
Cover Sheet
X Formal Drawing (4 sheets) X Check No. 27807 for \$856
X Check No. 27806 for \$40.00